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SPACE GROUP AND UNIT CELL DIMENSIONS OF COMPLEX SILVER LUTIDINE NITRATE

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Complex silver lutidine nitrate crystals are obtained by slow evaporation from an aqueous solution of the substance in acetone.

The crystals belong to the orthorhombic system. The unit cell dimensions are obtained from rotation and Weissenberg photographs along [001]. The dimensions of the unit cell are as follows :

$$a = 13.39\text{Å}, \quad b = 16.93\text{Å}, \quad c = 6.88\text{Å}$$

zero and first layer Weissenberg photographs along [001] were taken and the following systematic extinction were obtained.

hoo—even present; *oko* —even present; *ool*—even present; *hko*—no condition; *okl*—k+1 even *hol*—h even

From the above conditions the space group is assigned as $P_{na}21$

The density was determined by flotation method and was found to be 1.564gm/cc

The density calculated by considering 4 molecules per unit cell is 1.636gm/cc.

Further work on the determination of the complete structure of the substance is in progress.

REFERENCES

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A THEORY OF CLASSICAL LIQUIDS

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In case of liquid the configuration changes continuously with time. Taking the time average of these different configurations, we would plot the average